

Appl. No. 10/022,329
Resp. dated Nov. 12, 2003
Reply to Office Action of Sept. 10, 2003

RECEIVED
CENTRAL FAX CENTER

NOV 12 2003

In the United States Patent and Trademark Office

Applicants: Dodge et al.
Serial No.: 10/022,329
Confirmation No: 4952
Filed: 12/14/2001
For: High capacity and high rate
absorbent composite.

Docket 16,184
TC/A.U.: 3761
Examiner: Michele M. Kidwell
Date: November 12, 2003

OFFICIAL

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Response – A

Sir:

Pursuant to 37 C.F.R. § 1.111 and in response to the Office Action mailed September 10, 2003, the following remarks are submitted for your consideration and reconsideration of the present application is respectfully requested.

REMARKS/ARGUMENTS

Summary of the Invention

This invention relates to a nonwoven material for personal care products where the fibers in the material are oriented in the Z-direction. The material contains a large percentage of absorbent fibers and the balance of fibers may be synthetic or natural fibers. The orientation of the fibers in the Z-direction produces a material with high intake rate and high capacity.

Regarding Examiner's Rejections

1. Rejection for anticipation by Wanek et al.

By way of the Office Action mailed September 10, 2003, Examiner Kidwell rejected claims 1 – 18 under 35 U.S.C. § 102(b) as allegedly being anticipated by Wanek et al. (U.S. Patent No. 5,466,513). This rejection is respectfully traversed to the extent that it may apply to the present claims.

Wanek et al. discloses a multi-layer absorbent composite of high-absorbency material and synthetic polymeric fibers that can be used in a personal care product. However, Wanek et al. does

Appl. No. 10/022,329
Resp. dated Nov. 12, 2003
Reply to Office Action of Sept. 10, 2003

not disclose or teach the Z-direction orientation of fibers as in the present invention. Wanek et al. discloses that superabsorbent particles in an absorbent layer may be present with a Z-gradient particle size distribution. Such a distribution gradient of particle size is described as larger particles of superabsorbent being present on the bodyside of the absorbent layer while smaller superabsorbent particles being present on the opposite side of the same absorbent layer (column 11, lines 5 – 30).

In contrast, the fibers of the present invention are oriented in the Z-direction. As defined in the present invention (page 5, lines 9 – 15), such an orientation refers to the fibers of the nonwoven web, including the absorbent fibers, being oriented in a direction perpendicular to the predominant plane (X-Y) of the fabric. This orientation of fibers is important in order to provide a high intake rate (page 11, lines 13 -14).

Therefore, Wanek et al. fails to disclose each and every element of the Applicants' claims. Applicants respectfully submit that the rejection of claims 1 – 18 under 35 U.S.C. § 102(b) in view of Wanek et al. is improper and should be withdrawn.

2. Rejection for anticipation by Kellenberger

By way of the Office Action mailed September 10, 2003, Examiner Kidwell rejected claim 19 under 35 U.S.C. § 102(b) as allegedly being anticipated by Kellenberger (U.S. Patent No. 5,147,343). This rejection is respectfully **traversed** to the extent that it may apply to the present claims.

Kellenberger discloses an absorbent structure that can be used in a personal care product. Example 1 of Kellenberger also refers to superabsorbent material disposed in a Z-direction gradient (column 11, lines 61 – 66). Such an absorbent is disclosed as made according to the teachings of U.S. Patent No. 4,699,823 to Kellenberger et al., which is incorporated by reference (column 11, lines 61 – 66). Kellenberger et al. '823 discloses that such a Z-direction gradient of superabsorbent is a concentration gradient of superabsorbent material (see column 3, lines 5 – 11 and column 5, lines 16 – 24) where the concentration of superabsorbent material changes as one proceeds through the thickness of the absorbent material from the bodyside to the opposite side of the absorbent material (column 5, line 38 to column 6, line 16).

In contrast, as discussed above, the fibers of the present invention are oriented in the Z-direction. As defined in the present invention (page 5, lines 9 – 15), such an orientation refers to the fibers of the nonwoven web, including the absorbent fibers, being oriented in a direction

Appl. No. 10/022,329
Resp. dated Nov. 12, 2003
Reply to Office Action of Sept. 10, 2003

perpendicular to the predominant plane (X-Y) of the fabric. This orientation of fibers is important in order to provide a high intake rate (page 11, lines 13 -14).

Additionally, Examiner Kidwell contends that Kellenberger discloses an absorbent having an intake rate at 50% saturation of at least 7 cc/s and a capacity of at least 4 g/g as set forth in column 11, lines 14 – 34. The values that the Examiner refers to are the values associated with the Vertical-Fluid Intake and Flowback Evaluation (V-FIFE) and Multiple Insult Demand Absorbency Test (MIDAT) testing methodologies. Such values of fluid delivered as part of the V-FIFE and MIDAT testing procedures do not inherently imply the intake rate and capacity of the present invention.

Therefore, Kellenberger fails to disclose each and every element of the Applicants' claims. Applicants respectfully submit that the rejection of claim 19 under 35 U.S.C. § 102(b) in view of Kellenberger is improper and should be withdrawn.

3. Rejection for obviousness by Kellenberger

By way of the Office Action mailed September 10, 2003, Examiner Kidwell rejected claims 20 - 21 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Kellenberger (U.S. Patent No. 5,147,343). This rejection is respectfully traversed to the extent that it may apply to the present claims.

Kellenberger, as discussed above in the rejection of claim 19, does not disclose absorbent fibers orientated in the Z-direction. Additionally, as discussed above, Kellenberger does not disclose the intake rate and capacity of the present invention.

Claims 20 – 21 are dependent claims and contain all the limitations of claim 19. For the reasons previously discussed, Kellenberger does not disclose each and every element of the present invention. Applicants respectfully submit that a *prima facie* case of obviousness under 35 U.S.C. § 103(a) has not been established, and the rejection of claims 20 -21 should be withdrawn.

4. Rejection for obviousness by Wanek et al. in view of Kellenberger

By way of the Office Action mailed September 10, 2003, Examiner Kidwell rejected claim 22 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Wanek et al. (U.S. Patent 5,466,513) and

Appl. No. 10/022,329
Resp. dated Nov. 12, 2003
Reply to Office Action of Sept. 10, 2003

further in view of Kellenberger (U.S. Patent No. 5,147,343). This rejection is respectfully traversed to the extent that it may apply to the present claims.

As discussed above in the discussion of claims 1 – 21, both Wanek et al. and Kellenberger disclose absorbent material having a Z-direction gradient. As such, neither reference teaches the absorbent fiber Z-direction orientation of the present invention in the sense of 35 U.S.C. § 103(a). Furthermore, as discussed above for claims 19 -21, neither reference teaches the intake rate and capacity of the present invention.

Therefore, as neither reference independently nor in combination discloses each and every limitation of the present invention, a *prima facie* case of obviousness under 35 U.S.C. § 103(a) has not been established and the rejection of claim 22 should be withdrawn.

For the reasons stated above, it is respectfully submitted that all of the present claims are in form for allowance.

Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

The undersigned may be reached at: (770) 587-8096.

Respectfully submitted,

DODGE ET AL.

By: 

William D. Herrick
Registration No.: 25,468
Attorney for Applicant(s)

CERTIFICATE OF FACSIMILE TRANSMISSION

I, Nathan Hendon, hereby certify that on November 12, 2003, this document is being sent by facsimile to the United States Patent and Trademark Office, Technology Center 3700, "Before Final" facsimile machine at 703-872-9302.

By: 

Nathan Hendon